SHEET 1 OF 2

LIST: OF ART CITED BY APPLICANT			ATTY. DOCKET NO. UIOWA-0052		APPLN. SERIAL NO. 10/687,918				
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OTHER	RT (Including Author, Title, Date, Pertinent Pages, Publisher, Place of Publication, Etc.)	
TRADENTA	J. Loddy, et al., "Magnetically Modified Fuel Cell", 39th Power Source Proceedings, 2000, pages 144-147.	Complicate
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EXAMINER'S INITIALS	*PATENT NO.	*ISSUE DATE	INVE	NTOR NAME	CLASS	SUBCLASS	FILI DA		
w	5,422,246	06/06/95	KOOPAL et	al.	435	14	06/14/	93	
n	6,615,078 B1	09/02/03	BURSON et	al.	604	20	04/21/	00	
n	5,208,154	05/04/93	WEAVER et	al.	435	176	04/08/	91	
n	4,613,541	09/23/86	ISODA		428	212	12/31/	85	
n	4,711,245	12/08/87	HIGGINS et	al.	128	635	05/07/	'84	
n	5,391,272	02/21/95	O'DALY et a	al.	204	153.12	03/08/	94	
~	6,071,392	06/06/00	YAMAMOT	O et al.	204	403	06/03/	98	
W	5,298,144	03/29/94	SPOKANE		204	403	09/15/	92	
w	5,011,786	04/30/91	ISODA et al.		437	51	06/23/	89	
		U.S. PATENT	APPLICAT	ON PUBLICATIO	NS				
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w	PUB. NO. 2003/0104119A1	*PUB. DATE 06/05/03	 	PPLICANT	CLASS 427	SUBCLASS 2.1	11/21/	70.4	
w	2003/0104119A1 2003/0175803A1	09/18/03	WILSON et a		435	7.1	09/10/	-	
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n						ines of Langor	110.[1712.0	CU _{3,0}	
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ATTY, DOCKET NO. APPLN. SERIAL NO. **UIOWA-0052** 10/687.918 LIST OF PRIOR ART CITED BY APPLICANT(S) **APPLICANT** Johna LEDDY and Chaminda HETTIGE CUSTOMER NO. 34610 (PTO-1449) **FILING DATE** GROUP October 20, 2003 1754 U.S. PATENT DOCUMENTS *ISSUE **FILING EXAMINER'S** *PATENT NO. DATE *INVENTOR NAME CLASS **SUBCLASS INITIALS** DATE 4,902,555 02/20/90 ISODA et al. 428 195 07/13/87 w 5,205,920 04/27/93 OYAMA et al. 204 403 03/02/90 291 w 5,272,087 12/21/93 EL MURR et al. 10/16/90 435 $\overline{\gamma}$ 6,503,701 B1 01/07/03 **BAUER** 435 4 11/21/01 w 6,342,347 B1 01/29/02 **BAUER** 435 4 10/22/99 5,262,305 11/16/93 HELLER et al. 435 28 09/03/91 w 5,710,011 01/20/98 FORROW et al. 25 435 03/06/95 W m 4,978,610 7 12/18/90 FORREST et al. 435 07/23/87 w 5,869,200 02/09/99 NUNNALLY 429 10 08/12/97 U.S. PATENT APPLICATION PUBLICATIONS *PATENT APPLN. PUB. NO. *PUB. DATE *APPLICANT CLASS SUBCLASS W 2003/0150739A1 08/14/03 MOROZOV et al. 205 133 03/03/03 w 2003/0124572A1 07/03/03 UMEK et al. 435 6 07/30/02 **U.S. PATENT APPLICATIONS** APPLN. *FILING NO. DATE CLASS SUBCLASS *INVENTOR **FOREIGN PATENT DOCUMENTS EXAMINER'S** Translation INITIALS PATENT NO. DATE COUNTRY **CLASS SUBCLASS** Yas No w WO87/07386 12/03/87 **WIPO** n JP2001252553 09/18/01 Japan (Full Japanese Text) Abst w JP2000030743 01/28/00 Japan (Full Japanese Text) Abst W JP11323654 11/26/99 Japan (Full Japanese Text) OTHER ART (Including Author, Title, Date, Pertinent Pages, Publisher, Place of Publication, Etc.) Johna Leddy et al., "Magnetically Modified Fuel Cells," 39th Power Source Proceedings, 2000, N pp. 144-147. D.A.J. Rand, "Battery Systems for Electric Vehicles - A State-of-the-Art Review," Journal of Power 7 Sources, 1979, Vol. 4, pp. 101-143. Robert F. Nelson, "Power requirements for batteries in hybrid electric vehicles," Journal of Power n Sources, 2000, Vol. 91, pp. 2-26. Lester B. Lave et al., "Environmental Implications of Electric Cars," Science, Vol. 268, May 19, 1995, W pp. 993-995. **EXAMINER DATE CONSIDERED** 22/05

ATTY, DOCKET NO. APPLN. SERIAL NO. **UIOWA-0052** 10/687,918 LIST OF PRIOR ART CITED BY APPLICANT(S) **APPLICANT** Johna LEDDY and Chaminda HETTIGE CUSTOMER NO. 34610 (PTO-1449) FILING DATE **GROUP** October 20, 2003 1754 U.S. PATENT DOCUMENTS **EXAMINER'S** *ISSUE **FILING** INITIALS *PATENT NO. DATE *INVENTOR NAME CLASS **SUBCLASS** DATE w 3,409,471 11/05/68 F.V. STURM et al. 06/18/64 w 3,811,952 05/21/74 SIWERSSON et al. 136 86 A 06/20/73 3,853,628 12/10/74 FOX 136 86 D 07/26/73 w w 4,037,022 07/19/77 **CHERON** 429 10 05/06/76 W 4,201,827 05/06/80 **HEITKAMP** 428 283 11/23/77 W 5,871,625 02/16/99 LEDDY et al. 204 290 R 06/06/96 w 11/27/01 6,322,676 BI LEDDY et al. 204 296 03/25/98 6,303,242 B1 10/16/01 LEDDY et al. 10 429 w 12/10/99 W 5,817,221 10/06/98 LEDDY et al. 204 290 R 02/05/96 U.S. PATENT APPLICATION PUBLICATIONS *PATENT APPLN. *PUB. DATE PUB. NO. *APPLICANT CLASS **SUBCLASS** n 2002/0155476A1 10/24/02 POURMAND et al. 435 6 10/19/01 **U.S. PATENT APPLICATIONS** *APPLN. *FILING NO. DATE *INVENTOR CLASS **SUBCLASS** FOREIGN PATENT DOCUMENTS **EXAMINER'S** Translation INITIALS PATENT NO. DATE COUNTRY CLASS SUBCLASS Yes No W JP2001155746 06/08/01 Japan (Full Japanese Text) OTHER ART (Including Author, Title, Date, Pertinent Pages, Publisher, Place of Publication, Etc.) Alexander H. Tullo, "Maintaining A Charge," C&EN Northeast News Bureau, July 15, 2002, pp. 25-26. W Nicholas J. Turro et al., "Magnetic Field and Magnetic Isotope Effects in Organic Photochemical Reactions. A Novel Probe of Reaction Mechanisms and a Method for Enrichment of Magnetic Isotopes," W Acc. Chem. Res., 1980, Vol. 13, pp. 369-377. M. Feng et al., "Raman Spectroscopic and Electrochemical Characterization of Myoglobin Thin Film; \mathcal{N} Implication of the Role of Histidine 64 for Fast Heterogeneous Electron Transfer," J. Am. Chem. Soc., Vol. 123, No. 13, April 4, 2001, pp. 3013-3020. A.F. Nassar et al., "Catalytic Reduction of Organohalide Pollutants by Myoglobin in a Biomembranenlike Surfactant Film," J. Am. Chem. Soc., Vol. 117, No. 44, November 8, 1995, pp. 10986-10993. **EXAMINER** DATE CONSIDERED

LIST OF PRIOR ART CITED BY				ATTY. DOCKET NO. UIOWA-0052		APPLN. SERIAL NO. 10/687,918			
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w	6,355,166 B1	03/12/02	AMARASIN		210	223	10/29/99		
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04.				yo-hydrogel immobi	lized myog	globin at a glas	sy carbon		
n	electrode," Vol. 3								
n			actant films fo	r electrochemical ca	talysis," M	ficroporous M	aterials,		
	Vol. 3, 1994, pp.		nversion of N	Voglobin Pound to 9	Sunthatia E	lilavar Mambe	anac: Erom		
n	I. Hamachi et al., "Functional Conversion of Myoglobin Bound to Synthetic Bilayer Membranes: From Dioxygen Storage Protein to Redox Enzyme," J. Am. Chem. Soc., Vol. 113, No. 25, December 4, 1991, pp. 9625-9630								
		pp. 9625-9630. Kanya Yamazaki et al., "Secondary nonaqueous electrolyte batteries containing magnetic additives,"							
w	JP10106577, Apr								
w	Esther S. Takeuch (Abstract only).	ni "Magneticall	y compatible o	electrochemical cell,	" EP09801	05, February 1	6, 2000		
w	J. Maruo et al., "Non-Aqueous Electrolyte Secondary Battery," JP10106581, April 24, 1998 (Abstract only).								
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LIST OF PRIOR ART CITED BY				ATTY. DOCKET NO. UIOWA-0052		APPLN. SERIAL NO. 10/687,918			
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N				e electrochemical pr			ge electrode		
				1, 37(1), pp. 57-60 (1771 1		
n	V.I. Markarov et al., "Magnetic properties of powders, and their electrochemical activity," SciFinder								
		Scholar, Tr. Novocherkassk. Politekh. Inst., 1970, 208, pp. 100-103 (Abstract only).							
W	Masahiro Yamaguchi et al., "Effect of a magnetic field on the emf. of a Ni-MH secondary battery, Tohoku Daigaku Kinzoku Zairyo Kenkyusho Kyojiba Chodendo Zairyo Kenkyu Senta Nenji Hoku 1992, 329-333 (Abstract only).								
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